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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/518,609

07/27/2005

Kurt Hess

2003P16170

8991

24131 7590 03/20/2008
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EXAMINER

NGUYEN, HUNG T

ART UNIT

PAPER NUMBER

2612

MAIL DATE

DELIVERY MODE

03/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,609	Applicant(s) HESS ET AL.	
	Examiner HUNG T. NGUYEN	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/25/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishikawa et al. (U.S. 6,552,664).

Regarding claims 23-26, Nishikawa discloses a fire / smoke detector (1) [figs. 1, 5-6, col.1, lines 44-55 and col.7, lines 8-19] comprising:

- a housing (100) for housing / covering a modular construction of fire detector [figs.1-2, col.3, lines 31-41];

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- an optical guide (120) coupled with the printed circuit (110) to form an open bent path (122) for capturing an outside air with possible smoke particles [figs.1-2, col.3, lines 36-48];
- the sensor arrangement and the access opening are arranged substantially in one plane [fig.1];
- insertable multiple detectors as smoke (1) and temperature (2), photo-diode (11) and other types of detectors having printed circuit / printed board (110) for detecting smoke density and presence of fire around the detector have been programmed [figs.1,3,6-9, col.1, lines 44-65 and col.3, lines 29-54 and col.4, lines 5-17];
- an electronic evaluation system in the form of signal processing unit (3) [fig.3, col.4, lines 5-16];
- the photo-diode (11) is disposed at the other end of the path (122) to receive a diffused light from the LED (10) through a prism (124) to flow a current of varying level indicative of a smoke density in the air [col.3, lines 41-48];
- the insertable multiple detectors having printed circuit / printed board (110) for detecting smoke density and presence of fire around the detector have been programmed in a memory device of the IC chip [figs.1,3,6-9, col.1, lines 44-65 and col.3, lines 29-54 and col.4, lines 5-17].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-6, 8-13 & 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. (U.S. 6,552,664) in view of Wiemeyer et al. (U.S. 6,166,648).

Regarding claims 1, 4 & 21-22, Nishikawa discloses a fire / smoke detector (1) [figs. 1, 5-6, col.1, lines 44-55 and col.7, lines 8-19] comprising:

- a housing (100) for housing / covering a modular construction of fire detector [figs.1-2, col.3, lines 31-41];
- insertable multiple detectors as smoke (1) and temperature (2), photo-diode (11) and other types of detectors having printed circuit / printed board (110) for detecting smoke density and presence of fire around the detector have been programmed [figs.1,3,6-9, col.1, lines 44-65 and col.3, lines 29-54 and col.4, lines 5-17];
- an electronic evaluation system in the form of signal processing unit (3) [fig.3, col.4, lines 5-16];

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- an optical guide (120) coupled with the printed circuit (110) to form an open bent path (122) for capturing an outside air with possible smoke particles [figs.1-2, col.3, lines 36-48] ;
- the photo-diode (11) is disposed at the other end of the path (122) to receive a diffused light from the LED (10) through a prism (124) to flow a current of varying level indicative of a smoke density in the air [col.3, lines 41-48];
- the sensor arrangement and the access opening are arranged substantially in one plane [fig.1];
- the insertable multiple detectors as smoke (1) and temperature (2), photo-diode (11) and other types of detectors having printed circuit / printed board (110) for detecting smoke density and presence of fire around the detector have been programmed in a memory device of the IC chip [figs.1,3,6-9, col.1, lines 44-65 and col.3, lines 29-54 and col.4, lines 5-17].

If applicant still does not agree that the reference of Nishikawa having modular construction and the sensors for the different the fire parameters.

Then Wiemeyer does teach photoelectric smoke detectors with modular aspiration units (60,80,90) which may include smoke detectors, gas detectors, heat detectors and temperature detectors (T1,T2) coupled to control circuitry for monitoring multi adverse conditions [figs.3-6, col.4, lines 20 to col.5, line 3 and col.5, lines 56-66].

Therefore, it would have been obvious to one having ordinary skill in the art to utilize the teaching of Wiemeyer in the system of Nishikawa to monitor multi adverse conditions in the predetermined area.

Regarding claims 5-6, Nishikawa & Wiemeyer do not specifically mention details about housing constructions including hood forms access openings, bridges as claimed by applicant because those subjects are well known and the housing constructions are NOT primary subject of the invention and it is obvious design choice of the skilled artisan.

Therefore, it would have been obvious to one having ordinary skill in the art to modify the housing including hood forms access openings and bridges in the system of Nishikawa / Wiemeyer to perform the same function as desired.

Regarding claim 8 & 10-12, Nishikawa discloses the detectors as smoke (1) and temperature (2) and other types of detectors coupled with a printed circuit (110) for detecting smoke density and presence of fire around the detector [figs.1,3,6-9, col.1, lines 44-65 and col.3, lines 29-54 and col.4, lines 5-17]; and

Wiemeyer does teach photoelectric smoke detectors with modular aspiration units (60,80,90) which may include smoke detectors, gas detectors, heat detectors and temperature detectors (T1,T2) coupled to control circuitry for monitoring multi adverse conditions [figs.3-6, col.4, lines 20 to col.5, line 3 and col.5, lines 56-66].

Regarding claims 9, 13 & 18, please see claims 5-6 above.

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Regarding claims 19-20, Nishikawa discloses the detectors as smoke (1) and temperature (2) and other types of detectors coupled with a printed circuit (110) for detecting smoke density and presence of fire around the detector and gives warning messages in cases of high smoke density and condition of fire [figs.1,3,6-9, col.4, lines 5-17 and lines 45-64].

Regarding claims 23-26, Nishikawa discloses a fire / smoke detector (1) [figs. 1, 5-6, col.1, lines 44-55 and col.7, lines 8-19] comprising:

- a housing (100) for housing / covering a modular construction of fire detector [figs.1-2, col.3, lines 31-41];
- insertable multiple detectors as smoke (1) and temperature (2), photo-diode (11) and other types of detectors having printed circuit / printed board (110) for detecting smoke density and presence of fire around the detector have been programmed [figs.1,3,6-9, col.1, lines 44-65 and col.3, lines 29-54 and col.4, lines 5-17];
- an electronic evaluation system in the form of signal processing unit (3) [fig.3, col.4, lines 5-16];
- an optical guide (120) coupled with the printed circuit (110) to form an open bent path (122) for capturing an outside air with possible smoke particles [figs.1-2, col.3, lines 36-48] ;
- the photo-diode (11) is disposed at the other end of the path (122) to receive a diffused light from the LED (10) through a prism (124) to flow a current of varying level indicative of a smoke density in the air [col.3, lines 41-48];

- the sensor arrangement and the access opening are arranged substantially in one plane [fig.1];
- the insertable multiple detectors as smoke (1) and temperature (2), photo-diode (11) and other types of detectors having printed circuit / printed board (110) for detecting smoke density and presence of fire around the detector have been programmed in a memory device of the IC chip [figs.1,3,6-9, col.1, lines 44-65 and col.3, lines 29-54 and col.4, lines 5-17].

If applicant still does not agree that the reference of Nishikawa having the sensors for the different the fire parameters.

Then Wiemeyer does teach photoelectric smoke detectors with modular aspiration units (60) which may include smoke detectors, gas detectors, heat detectors and temperature (T1) coupled to control circuitry for monitoring multi adverse conditions [figs.3-6, col.4, lines 20 to col.5, line 3 and col.5, lines 56-66].

Therefore, it would have been obvious to one having ordinary skill in the art to utilize the teaching of Wiemeyer in the system of Nishikawa to monitor multi adverse conditions in the predetermined area.

5. Claims 7 & 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. (U.S. 6,552,664) in view of Wiemeyer et al. (U.S. 6,166,648) further in view of Rattman et al. (U.S. 6,756,905).

Regarding claims 7 & 14, Nishikawa discloses the detectors as smoke (1) and temperature (2), photo-diode (11) and other types of detectors coupled with a printed circuit / printed board (110) for detecting smoke density and presence of fire around the detector [figs.1,3,6-9, col.1, lines 44-65 and col.3, lines 29-54 and col.4, lines 5-17];

- an optical guide (120) coupled with the printed circuit (110) to form an open bent path (122) for capturing an outside air with possible smoke particles [figs.1-2, col.3, lines 36-48] ; and
- the photo-diode (11) is disposed at the other end of the path (122) to receive a diffused light from the LED (10) through a prism (124) to flow a current of varying level indicative of a smoke density in the air [col.3, lines 41-48].
- the housing (100) for housing / covering a modular construction of fire detector [figs.1-2, col.3, lines 31-41] without mention labyrinth system as claimed by applicant.

Furthermore, Rattman teaches a measuring smoke detector chamber (30) including labyrinth system (38) extending generally around the entire side wall for ingress and egress of smoke particles, a top and bottom [abstract, col.8,lines 31-46 and col.9, lines 12-16].

Therefore, it would have been obvious to one having ordinary skill in the art to have the teaching of Rattman in the system of Nishikawa & Wiemeyer for measuring the smoke detection chamber & providing numerous clear paths for passage of smoke particles into and out of the smoke detection chamber.

Regarding claims 15-16, Nishikawa & Rattman and Wiemeyer do not specifically mention details about housing constructions including multiple connectors, a multi plug as claimed by applicant because those subjects are well known and the housing constructions are NOT primary subject of the invention and it is obvious design choice of the skilled artisan.

Regarding claim 17, Nishikawa discloses the detectors as smoke (1) and temperature (2) and other types of detectors coupled with a printed circuit (110) for detecting smoke density and presence of fire around the detector and gives warning messages in cases of high smoke density and condition of fire [figs.1,3,6-9, col.4, lines 5-17 and lines 45-64].

Arguments & Responses

6. Applicant's argument filed on 1/25/2008 have been fully considered but they are moot in view of the new ground(s) of rejection.

A/ Applicant states that Nishikawa fails to disclose modular construction , detectors modules having sensors for different fire parameters.

B/ Applicant states that Nishikawa fails to disclose all detection modules being compatible within a single housing.

C/ Applicant states that Nishikawa fails to disclose the sensor arrangement and the access opening are arranged substantially in one plane.

Response to the Argument:

A/ Nishikawa teaches the similar concept as insertable multiple detectors as smoke (1) and temperature (2), photo-diode (11) and other types of detectors (IC1-IC5) having printed circuit / printed board (110) for detecting smoke density and presence of fire around the detector have been programmed in a memory device of the IC chip [figs.1,3,6-9, col.1, lines 44-65 and col.3, lines 29-54 and col.4, lines 5-17]; and

Wiemeyer does teach photoelectric smoke detectors with modular aspiration units (60,80,90) which may include smoke detectors, gas detectors, heat detectors and temperature detectors (T1,T2) coupled to control circuitry for monitoring multi adverse conditions [figs.3-6, col.4, lines 20 to col.5, line 3 and col.5, lines 56-66].

B/ Nishikawa teaches multi detectors (1-2,11) & detectors (IC1-IC5) linked with the signal processing unit (3) being compatible within a single housing [figs.1-3, col.4, lines 5-16].

C/ Nishikawa teaches the sensor arrangement and the access opening are arranged substantially in one plane [fig.1].

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung T. Nguyen whose telephone number is (571) 272-2982. The examiner can normally be reached on Monday to Friday from 9:00 am to 6:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hofsass, Jeffrey can be reached on (571) 272-2981. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

/HUNG T. NGUYEN/

Primary Examiner, Art Unit 2612

Date: Mar. 12, 2008

<div>Application Number</div> <div></div>	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/518,609	HESS ET AL.	
	Examiner	Art Unit	
	HUNG T. NGUYEN	2612	